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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,952	10/06/2003	Digant P. Dave	119927-1068	3581

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EXAMINER
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LEE, JOHN D

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,952	<b>Applicant(s)</b> DAVE ET AL.	
	<b>Examiner</b> John D. Lee	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 36-39 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-31 and 36-38 is/are allowed.
- 6) ☒ Claim(s) 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0506</u> . | 6) <input type="checkbox"/> Other: _____  |

This Office action is responsive to applicant's amendment submitted on April 27, 2006. The corrections to the disclosure are noted with appreciation. Claims 32-35 having been canceled, claims 1-31 and 36-39 are presently pending herein.

Claims 4, 14, 15, 28, and 37 are objected to because of the following minor informalities: In line 4 of claim 4, "a phase" should be "the phase" in order to correctly indicate the phase modulator being referenced. This change was necessitated by the amendment to claim 1. In claim 14, line 2, "polarization" is misspelled. In claim 15, line 2, "reflectometer" is misspelled. Claim 28 should be presented with a left margin indent in a separate line. In claim 37, lines 4-5, there is no antecedent support for "the polarization-maintaining path coupler". This problem could be obviated by changing the word "the" to "a" in the indicated phrase. In the last line of claim 37, "a polarization-maintaining path coupler" should be changed to "the polarization-maintaining path coupler" in order to clearly indicate that this is the same element previously referred to. Appropriate correction is required.

Claims 1-31 and 36-38 are allowed. The reasons for patentable distinction of these claims from the prior art is clearly indicated in the previous Office action (paper number 1205, mailed December 27, 2005) and in the Remarks/Arguments accompanying applicant's amendment of April 27, 2006.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 39 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,459,570 to Swanson et al in view of Schmitt (IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS article). Swanson et al discloses a fiber-based optical low-coherence reflectometer comprising a polarization-maintaining source path, a polarization-maintaining reference path, a polarization-maintaining sample path optically aligned with a focusing lens (for focusing light on a sample) and a quarter wave retarder, and a polarization-maintaining detection path, wherein all four paths are connected to a polarization-maintaining path coupler. See Figure 6 of Swanson et al, along with column 4, lines 59-61. Swanson et al does not clearly show or disclose whether or not a collimating lens is also included in the polarization-maintaining sample path. Schmitt, however, in the same type of fiber-based optical low-coherence reflectometer (see Figure 4(c)), clearly shows that the sample path should include both a collimating lens and a focusing lens in front of the sample to be illuminated. Because these reflectometers are nearly identical, it would have been obvious for the person of ordinary skill in the art to ensure that the polarization-maintaining sample path of Swanson et al (Figure 6) includes both a collimating lens and a focusing lens in front of the sample to be illuminated. To the person of ordinary skill in the art, the logical sequence of these elements would be (1) the collimating lens to collimate the light upon the retarder for more efficient functioning of the retarder, (2) the variable wave retarder, (3) the focusing lens to focus the light upon the sample, and (4) the sample.

Applicant's arguments filed April 27, 2006, with respect to new claim 39, have been fully considered but they are not deemed to be persuasive. It is noted that

applicant has not actually argued against the applied prior art with respect to new claim 39, but has merely described the claim's content and shown basis for its support in the specification. New claim 39 is very similar to original claim 1. The arguments regarding claim 1 do not apply to this new claim since claim 1 was amended to incorporate patentably distinguishing subject matter.

All of the prior art documents submitted by applicant in the Information Disclosure Statement received on May 3, 2006, have been considered and made of record (note the attached initialed copy of form PTO-1449).

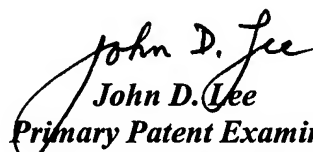
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE (3) MONTHS from the mailing date of this action. In the event a first reply is filed within TWO (2) MONTHS of the mailing date of this final action and an advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX (6) MONTHS from the mailing date of this final action.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to

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the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.

  
**John D. Lee**  
**Primary Patent Examiner**  
**Group Art Unit 2874**